

Hydro Logic, Inc

1002 W. Franklin Street, Boise, ID 83702 (208) 342-8369, (Fax) 342-3100, hydrologic@qwest.net

October 3, 2008

Mr. Steve Lester
Water Rights Supervisor
Idaho Department of Water Resources
Western Regional Office
2735 Airport Way
Boise, ID 83705

RECEIVED

OCT 07 2008

**WATER RESOURCES
WESTERN REGION**

Subject: Verification of Beneficial Use For City of Kuna Water Right License No. 63-11970

Dear Steve:

I write in response to your letter of September 22, 2008 requesting additional data for processing of City of Kuna Transfer No. 75059.

First of all, on behalf of myself and the City of Kuna, Idaho, I want to express our gratitude for the Department's prompt processing and advertisement of this transfer application. The City is under an IDEQ consent order pertaining to the natural ground water contamination in the water produced from Well #4 and our efforts to get a new well on line are responsible for a temporary stay of that order.

In regard to your request for verification of use within the last five years I submit two pages of pump house records showing daily production and run-time hours for the Well #4 pumping plant. The first page shows the Well #4 pumping schedule for September 2007 (the well has been off line for a good part of 2008). This chart shows the well running almost continuously during some days of the peak demand (summer) season at discharge rates up to 1,417 gpm (~3.2 cfs). The second document is the same pump house chart for September 2004 indicating a peak daily average discharge rate of 1,667 gpm (3.71 cfs) on September 20th, 2004 and an averaged pumping rate for the month of 1,476 gpm (~3.3 cfs). The municipal water right License No. 63-11970 allows for an instantaneous diversion rate of 3.78 cfs.

My understanding from speaking with Janice Yerton, Superintendent of the Kuna Water Department, is that the currently installed pumping plant in the Well #4 is the originally installed pump dating back to 1992. During our hydrogeological investigations in 2008, we had Layne of Idaho remove the pumping plant from the well and to inspect it for wear. Layne concluded that the impellers in the two-stage bowl assembly are quite worn. Because this model of pump bowl is no longer manufactured, and no parts available, Layne recommended "building up" the impellers by braising to recover lost productive capacity. In other words, the current (2007) recorded discharge rates are somewhat reduced by the wear of the impellers in the pumping plant. This wear is apparent in the generally higher discharge rates in 2004 when the pump was less worn even though it was then already over ten years old.

It is obvious in the pumping data that shorter periods of pumping result in higher averaged instantaneous diversion rates; most likely owing to the generally higher pumping water levels

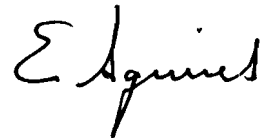
early in the pumping cycles compared to extended runs where the pump is running almost continuously for days on end during peak season demand. Without actual instantaneous flow-meter readings being recorded, the documented discharge rates are daily averages. The shorter pumping cycles in the off-peak water demand season are therefore a better representation of the peak diversion rates from Kuna Well #4.

It is my professional opinion, as a Certified Water Right Examiner in the State of Idaho, that the Kuna Well #4 has been produced at the full instantaneous diversion rate under water right License No. 63-11970 within the last five years of continuous use by the City of Kuna Idaho.

I stand available to answer for any questions you may have or to supply any additional information IDWR deems necessary.

Sincerely,

Ed Squires

A handwritten signature in black ink, appearing to read 'Ed Squires', is written over the printed name.

c: Gordon N. Law, P.E., Public Works Director and City Engineer, City of Kuna
 Janice Yerton, Water Department Superintendent, City of Kuna

CEDAR

SEPTEMBER 2004

CITY OF KUNA

WATER DEPARTMENT

MONTH / YEAR SEP 04

WELL # 4

GPM
AVERAGE = 1476

DATE	WELL METER READ	PRODUCTION HOUR METER	HOURS	FLOW METER	PRODUCTION	CL.2	INTL	REMARKS	GPM
1	710551	1369	4039.3	17.2	26539.8	1310	1.0	4.0	1,326
2	711954	1403	8057.3	19.0	26674.0	1362	1.0	4.0	1,299
3	712816	862	8067.3	10.7	26758.0	970	1.0	4.0	1,342
4	713182	306	8072.3	5.4	26792.6	396	1.0	4.0	1,130
5	713547	665	8080.1	7.8	26851.3	637	1.0	4.0	1,420
6	714323	476	8085.6	5.5	26906.7	454	1.0	4.0	1,442
7	715073	750	8094.3	7.7	26961.3	746	1.0	4.0	1,437
8	715722	649	8101.8	7.5	27043.4	641	1.0	4.0	1,442
9	716445	723	8110.1	8.3	27111.6	662	1.0	4.0	1,452
10	717030	597	8116.8	6.7	27170.8	592	1.0	4.0	1,460
11	717544	512	8122.7	10.0	27218.0	472	1.0	4.0	1,236
12	718101	557	8129.0	6.3	27274.1	510	1.0	4.0	1,473
13	719346	245	8131.7	2.7	27297.1	227	1.0	4.0	1,512
14	718441	95	8132.8	1.1	27309.2	121	1.0	4.0	1,439
15	718606	165	8134.6	1.8	27324.7	155	1.0	4.0	1,528
16	718743	137	8136.1	1.5	27334.6	99	1.0	4.0	1,522
17	718930	97	8137.0	0.9	27346.8	122	1.0	4.0	1,611
18	718576	46	8137.9	0.5	27351.7	49	1.0	4.0	1,533
19	718930	54	8138.1	0.6	27354.6	39	1.0	4.0	1,500
20	719020	70	8139.0	0.9	27364.6	100	1.0	4.0	1,667
21	719161	141	8140.5	1.5	27375.8	112	1.0	4.0	1,567
22	719305	144	8142.1	1.6	27392.8	170	1.0	4.0	1,500
23	719546	241	8144.6	2.5	27414.0	212	1.0	4.0	1,607
24	719706	160	8146.3	1.7	27428.0	140	1.0	4.0	1,569
25	719876	170	8148.1	1.8	27446.4	184	1.0	4.0	1,574
26	720174	298	8151.3	3.2	27475.2	298	1.0	4.0	1,552
27	720425	451	8154.1	4.8	27520.5	653	1.0	4.0	1,565
28	720497	312	8154.5	3.4	27550.5	500	1.0	4.0	1,529
29	721044	367	8163.4	3.9	27582.9	534	1.0	4.0	1,568
30	721535	034	8163.8	2.9	27608.0	241	1.0	4.0	
31									
TOTAL		12,346,000	145.8		12,200,000				

CITY OF KUNA
WATER DEPARTMENT

SEPTEMBER 2007

#4

WELL # Cedar

MONTH/YEAR 8-07

DATE	WELL	TIME READ	PRODUCTION	HOUR METER	HOURS	FLOW METER	PRODUCTION	CL.2	INTL.	REMARKS
1	574	902	1826	18581.9	24.7	12116.4	1782	.11	2.25	1232 gpm
2	576	563	1611	18902.0	20.1	12272.3	1559	.29	2.25	
3	577	928	1365	18929.9	17.9	12402.1	1298	.22	2.25	
4	579	126	1194	18935.6	16.7	12514.0	1119		2.25	
5	580	240	1114	18950.1	14.5	12624.9	1109		2.25	
6	581	506	1266	18966.7	16.6	12749.8	1249	.13	2.25	
7	582	726	1020	18982.5	15.8	12867.5	1177	.42	2.25	
8	583	337	611	18996.4	8.9	12923.4	559		2.25	
9	583	514	177	18992.5	2.1	12940.9	174		2.25	1405 gpm
10	583	755	241	18995.4	2.9	12964.5	237		2.25	
11	583	889	134	18997.0	1.6	12988.0	135		2.25	1395 gpm
12	583	936	97	18997.2	1.2	12988.0	100		2.25	
13	584	251	265	19001.3	3.1	13014.8	268	.22	2.25	
14	584	415	164	19003.2	1.9	13028.9	141	.21	2.25	
15	584	733	222	19006.9	3.2	13059.5	306	.23	2.25	
16	584	904	162	19008.8	1.9	13075.9	164		2.25	
17	585	356	452	19014.1	5.3	13123.9	480		2.25	
18	586	015	659	19021.9	7.1	13187.0	531		2.25	1408 gpm
19	586	717	702	19030.2	8.3	13254.3	673		2.25	
20	587	293	576	19037.0	6.8	13313.9	596	.28	2.25	
21	587	926	533	19043.2	6.2	13365.8	497		2.25	Delivered At 1905 5 Series
22	588	440	614	19050.5	7.3	13422.5	587	.24	2.25	
23	589	111	671	19058.5	8.0	13488.6	661	.23	2.25	raised to 6.50
24	589	919	808	19068.0	9.5	13573.4	848	.25	2.25	1417 gpm
25	590	712	793	19077.5	8.5	13645.9	725		2.25	
26	591	727	1015	19089.6	12.1	13746.4	1005		2.25	
27	592	861	1034	19102.1	12.5	13851.8	1054	.24	2.25	
28	593	672	911	19113.7	11.1	13946.2	944	.23	2.25	
29	595	099	1427	19130.8	17.6	14085.6	1394	.23	2.25	
30	596	772	1873	19154.6	23.8	14269.3	1837	.23	2.25	TOOK SAMPLES
31	598	702	1730	19176.8	22.2	14435.4	1661	.23	2.25	
TOTAL			25576		221.1		24872			

Code Replaced Separator - Well Pump

Delivered At 1905 5 Series

raised to 6.50

TOOK SAMPLES